

AMENDMENTS TO THE CLAIMS

1. (currently amended) An improved catalytic process for the preparation of epoxides from alkenes, said process ~~comprises~~comprising the steps of:

a. ~~reacting, as a reaction mixture including an organic solvent, water, or a combination thereof, an alkenes~~alkene in a concentration range of 0.001 mol to 10 mol ~~optionally in the presence of a transition metal salt in a concentration range of from 0.01 mmol to 0.01 mol, in combination with an inorganic base in a concentration range of 0.0003 mol to 4.0 mol and an organic compound~~additive selected from the group consisting of urea, alkyl substituted urea, aryl substituted urea and thio-urea in a concentration range 0.02 mol to 30.0 mol, as catalyst, ~~underin~~a biphasic homogeneous system ~~andwhile continuous~~continuously stirring with hydrogen peroxide as a source of oxygen over a time period ~~of from 2 to 10 h~~hours at a temperature ~~rangeranging offrom~~-10° to 80 °C to obtain reaction mixtureform an epoxide and water, ~~with a~~wherein the conversion of the alkene is >99% andwith at least about 95% selectivity, and

b. separating the ~~epoxides~~epoxide from ~~aqueous layer of the reaction mixture, water~~ by a layer separation method ~~after about 15 h alternativelyor by a solvent extraction method in case of partially water soluble/solid epoxides.~~

2. (currently amended) An improved catalytic process as claimed in claim 1, wherein ~~alkenes~~the alkene used is selected from the group ~~comprising~~consisting of styrene, indene, cyclohexene, 1,2 hydronaphthalene, isoprene, α -pinene, 1-hexene, 1-octene and t-4-octene.

3. (currently amended) An improved catalytic process as claimed in ~~claims~~claim 1, wherein the transition metal salt ~~used is~~includes a transition metal selected from the group consisting of cobalt, manganese, nickel, copper, iron, chromium and vanadium, ~~whileand~~the counter ion likeis selected from the group consisting of chloride, bromide,

iodide, carbonate, bi-carbonate, perchlorate, sulphate, nitrate, acetate, and phosphate.

4. (currently amended) An improved catalytic process as claimed in ~~claims~~claim 1, wherein a combination of the organic solvent and water is used, the organic solvent is being selected from the group consisting of benzene, ~~fluorobenzene~~fluorobenzene, chlorobenzene, nitrobenzene, 1,4-dioxane acetonitrile, benzonitrile, formamide, acetamide, propamide, dimethylformamide, dimethylacetamide, dichloromethane and dichloroethane, and wherein the organic solvent and water are proportioned in ~~combination of water~~ 2:3 v/v.

5. (currently amended) An improved catalytic process as claimed in ~~claims~~claim 1, the inorganic ~~promoter~~base used ~~are~~is selected from the group consisting of carbonates and bicarbonates of alkali metals ~~like lithium, sodium, potassium and cesium.~~

6. (canceled) An improved catalytic process as claimed in claims 1, wherein an organic additive used is selected from the group consisting of acetonitrile, benzonitrile, formamide, acetamide, propamide, dimethylformamide, dimethylacetamide, urea, alkyl substituted urea, aryl substituted urea and thio-urea.

7. (currently amended) An improved catalytic process as claimed in ~~claims~~claim 1, wherein the ~~concentration of~~ hydrogen peroxide was maintained at a concentration in the range of 5% to 55%.

8. (currently amended) An improved catalytic process as claimed in ~~claims~~claim 1, wherein the ~~aging period of the~~ reaction mixture ~~was maintained~~is allowed to age for a time period in the range of from 3 to 15 hours prior to separating the epoxide from the

water.

9. (new) The improved catalytic process as claimed in claim 5, wherein the alkali metal is selected from the group consisting of lithium, sodium, potassium and cesium.